

FORM PTO-1390 (REV 1-2003)		U.S. Department of Commerce Patent and Trademark Office		ATTORNEY'S DOCKET NUMBER CML01134EP	
TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371				U.S. APPLICATION NO. (if known) 37 CFR 1.5) 10/566932	
INTERNATIONAL APPLICATION NO. PCT/EP2004/051643		INTERNATIONAL FILING DATE JULY 28, 2004		PRIORITY DATE CLAIMED AUGUST 28, 2003	
TITLE OF INVENTION: OFDM CHANNEL ESTIMATION AND TRACKING FOR MULTIPLE TRANSMIT ANTENNAS					
APPLICANT(S) FOR DO/EO/US DIAS ET AL.					
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:					
<ol style="list-style-type: none"> 1. <input checked="" type="checkbox"/> This is a FIRST submission of items concerning a submission under 35 U.S.C. 371. 2. <input type="checkbox"/> This is a SECOND or SUBSEQUENT submission of items concerning a submission under 35 U.S.C. 371. 3. <input checked="" type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below. 4. <input type="checkbox"/> The US has been elected (Article 31). 5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2)) <ol style="list-style-type: none"> a. <input type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau). b. <input checked="" type="checkbox"/> has been communicated by the International Bureau. c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US). 6. <input checked="" type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371 (c)(2)). <ol style="list-style-type: none"> a. <input type="checkbox"/> is attached hereto. b. <input checked="" type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4). 7. <input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)). <ol style="list-style-type: none"> a. <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau). b. <input type="checkbox"/> have been communicated by the International Bureau. c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired. d. <input type="checkbox"/> have not been made and will not be made. 8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)). 9. <input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). 10. <input type="checkbox"/> An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)). 					
Items 11 to 20 below concern other document(s) or information included:					
<ol style="list-style-type: none"> 11. <input checked="" type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98. 12. <input checked="" type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included. 13. <input checked="" type="checkbox"/> A preliminary amendment. 14. <input type="checkbox"/> An Application Data Sheet under 37 CFR 1.76. 15. <input type="checkbox"/> A substitute specification. 16. <input type="checkbox"/> A power of attorney and/or change of address letter. 17. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821 - 1.825. 18. <input type="checkbox"/> A second copy of the published International Application under 35 U.S.C. 154(d)(4). 19. <input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4). 20. <input type="checkbox"/> Other items or information: 					

U.S. A		R1:5		International Application No.		Attorney Docket Number	
10/566932				PCT/EP2004/051643		CML01134EP	
The following fees have been submitted:						CALCULATIONS	PTO USE ONLY
21. <input type="checkbox"/> Basic national fee.....\$300						\$	
22. <input type="checkbox"/> Examination fee If International preliminary examination report prepared by USPTO and all claims satisfy provisions of PCT Article 33(1)-(4).....\$100 All other situations.....\$200						\$	
23. <input type="checkbox"/> Search fee Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority.....\$100 International Search Report prepared and provided to the Office.....\$400 All other situations.....\$500						\$	
TOTAL OF 21, 22 AND 23=						\$	
<input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing or computer program listing filed in an electronic medium). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.							
Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof (round up to a whole number)		RATE			
-100 =	/50 =			x \$250		\$	
Surcharge of \$130.00 for furnishing the oath or declaration later than 30 months from the earliest claimed priority date (37 CFR 1.492(h)).						\$	
Claims	Number Filed	Number Extra	Rate				
Total Claims	- 20 =		x \$50.00		\$		
Independent Claims	- 3 =		x \$200.00		\$		
MULTIPLE DEPENDENT CLAIM(s) (if applicable)				+ \$360.00		\$	
TOTAL OF ABOVE CALCULATIONS =						\$	
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by 1/2.						\$	
SUBTOTAL =						\$	
Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).						\$	
TOTAL NATIONAL FEE =						\$	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property						\$	
TOTAL FEES ENCLOSED =						\$	
						Amount to be refunded:	\$
						Amount to be Charged:	\$ 1000.00
<p>a. <input type="checkbox"/> A check in the amount of \$_____ to cover the above fees is enclosed.</p> <p>b. <input checked="" type="checkbox"/> Please charge my Deposit Account No. 502117 to cover any/all fees.</p> <p>c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 502117.</p> <p>d. <input type="checkbox"/> Fees are to be charged to a credit card. WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information any authorization on PTO - 2038.</p> <p>Note: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.127 (a) or (b)) must be filed and granted to restore the international application to pending status.</p> <p>Send all correspondence to:</p> <p>Motorola, Inc. Intellectual Property Department 1303 E. Algonquin Road IL01-3rd Floor Schaumburg, Illinois 60196</p> <p>Kenneth A. Haas Attorney for Applicant(s) Reg. No.: 42,614 Telephone: 847/576-6937 Fax No.: 847/576-3750</p>							

10/566932

1AP20 Rec'd PCT/PTO 02 FEB 2006

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS: MOTOROLA, INC INT'L APPLICATION NO: PCT/EP2004/051643

CASE NO.: CML01134EP INT'L FILE DATE: JULY 28, 2004

ENTITLED: OFDM CHANNEL ESTIMATION AND TRACKING FOR MULTIPLE TRANSMIT ANTENNAS

Motorola, Inc.
Corporate Offices
1303 E. Algonquin Road
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CERTIFICATE OF EXPRESS MAILING / FILING UNDER 35 U.S.C. 371

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Sir:

I certify that the above-referenced FILING UNDER 35 U.S.C. 371 was deposited, postage prepaid, as Express Mail having the mailing label number written below with the United States Postal Service addressed to:

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